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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/563,105

12/30/2005

Misao Takakusaki

1592-0159PUS1

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2292 7590 07/13/2010
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EXAMINER

SONG, MATTHEW J

ART UNIT

PAPER NUMBER

1714

NOTIFICATION DATE

DELIVERY MODE

07/13/2010

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

<p align="center">Advisory Action Before the Filing of an Appeal Brief</p>	<p>Application No. 10/563,105</p>	<p>Applicant(s) TAKAKUSAKI ET AL.</p>
	<p>Examiner MATTHEW J. SONG</p>	<p>Art Unit 1714</p>

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 6/22/2010 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☒ The period for reply expires 4 months from the mailing date of the final rejection.
b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on _____. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

AMENDMENTS

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because
(a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);
(b) ☐ They raise the issue of new matter (see NOTE below);
(c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
(d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: _____. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).
5. ☐ Applicant's reply has overcome the following rejection(s): _____.
6. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
7. ☐ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.
The status of the claim(s) is (or will be) as follows:
Claim(s) allowed: _____.
Claim(s) objected to: _____.
Claim(s) rejected: _____.
Claim(s) withdrawn from consideration: _____.

AFFIDAVIT OR OTHER EVIDENCE

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).
9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing a good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).
10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

REQUEST FOR RECONSIDERATION/OTHER

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because:
See Continuation Sheet.
12. ☒ Note the attached Information *Disclosure Statement*(s). (PTO/SB/08) Paper No(s). 5/19/2010; 4/16/2010
13. ☐ Other: _____.

/Robert M Kunemund/
Primary Examiner, Art Unit 1714

Continuation of 11. does NOT place the application in condition for allowance because: Applicant's arguments filed 6/22/2010 have been fully considered but they are not persuasive.

Applicant's argument that Figs 1, 2, 4 and 5 indicate that the supply of Va or arsine is continued even after the supply of Group IIIa elements is stopped is noted but not found persuasive. Kashima et al clearly teaches supply of Va group material is suspended and supply of all the thin film raw materials to a substrate is interrupted temporarily [t2 time] (Translation [0006]). Therefore, all of the materials, Va and IIIa, are stopped during the time t2.

Applicant's argument that Kashima teaches a downtime of 24 seconds but it does not follow that the remaining molecular beam intensity is reduced to 0.1 or less is noted but not found persuasive. Applicant teaches a As beam intensity is reduced to 1/14 after 1 second and an As beam intensity within the claimed range after approximately 50 seconds (See applicant's specification pg 9 and Fig 4). Therefore, one of ordinary skill in the art would expect a similar stoppage time to produce a similar remaining molecular beam intensity because Kashima et al teaches stopping all raw materials for a period of 24 seconds

Applicant's argument that Kashima shows that the In supply is restarted before the supply of phosphine is started is noted but not found persuasive. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., the In supply is not restarted before the supply of phosphine is started) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). The instant claims merely require a first step of irradiating Group III and Group V materials; stopping the irradiation of Group III and Group V materials; and further irradiating at least Group III materials. The claimed features are taught by the prior art.

Applicant's arguments regarding criticality of the endpoints is noted but not found persuasive. Applicant alleges that it takes at least 20 seconds for the remaining beam to be reduced to less than 0.01 and when the growth is left without irradiation for such a long time, As escapes from the layer. First, there is no evidence comparing film properties to show that at 0.01 there is a criticality, thus this mere attorney argument which lacks evidence and is not persuasive. Second, the length of time is not claimed, merely the remaining molecular beam intensity. Third, there is no comparison with the closest prior art, Kashima et al, which teaches stopping raw materials for a time period of 24 seconds to show an unexpected result. The same arguments apply to the upper end point of 0.1, which is merely an allegation of criticality without supporting experimental evidence to show the criticality.